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EXAMINER	
ELAHEE, MD S	

ART UNIT	PAPER NUMBER
2697	5

DATE MAILED: 08/01/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/038,981	BELTRAN ET AL.	
	Examiner	Art Unit	
	Md S Elahee	2697	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *03* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *02, 04* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claims 1, 5, 6, 9 and 10 are objected to because of the following informalities: the phrase "based in" in line 18, on page 16, lines 11, 17, on page 17, line 17, on page 18 and line 1, on page 19, appears to be "based on". Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-12 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lindquist et al. (U.S. Patent No. 5,852,660).

Regarding claim 1, Lindquist teaches receiving in the Message Transfer Part (MTP) of the gateway in the first SS7 telecommunications network a signaling message, the signaling message including an Originating Point Code (OPC) and a Destination Point Code (DPC), wherein the OPC and DPC values are according with the numbering plan of the SS7 telecommunications network that originates the signaling message (fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Lindquist further teaches mapping based on the direction of the signaling message in the MTP of the gateway in the first SS7 telecommunications network, the OPC and DPC from the

first numbering plan to an second network numbering plan (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Lindquist further teaches delivering the signaling message from the gateway in the first SS7 telecommunications network to a destination node according to the mapped DPC of the second numbering plan (fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Regarding claim 2, Lindquist teaches that the gateway is a Signaling Transfer Point or a Signaling End Point (fig.6; col.6, line 42; 'gateway' reads on the claim 'Border Node').

Regarding claim 3, Lindquist teaches that the signaling message is an outgoing signaling message or an incoming signaling message (fig.5, fig.6; col.6, lines 19-35, 51-54).

Regarding claim 4, Lindquist teaches that the step of receiving in the Message Transfer Part (MTP) of the gateway in the first SS7 telecommunications network a signaling message, the signaling message is an outgoing signaling message and signaling message is originated in the first SS7 telecommunications network, wherein the outgoing signaling message including an actual OPC in the first SS7 telecommunications network and an alias DPC in the second network as defined within the first SS7 telecommunications network's own numbering plan (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Regarding claim 5, Lindquist teaches that the step of mapping based in the direction of the signaling message in the MTP of the gateway in the first SS7 telecommunications network, the signaling message is an outgoing signaling message and the actual OPC and alias DPC are mapped from the first network's own numbering plan to an alias OPC and an actual DPC in the second network's numbering plan (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Regarding claims 6 and 10, Lindquist teaches that checking in the MTP of the gateway if the Link Set associated toward the destination node supports MTP Point Code Mapping (fig.1, fig.2, fig.5, fig.6; col.4, lines 46-63, col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Lindquist further teaches extracting the actual OPC and alias DPC from the outgoing signaling message (fig.1, fig.2, fig.5, fig.6; col.4, lines 46-63, col.6, lines 19-35, 51-54).

Lindquist further teaches selecting an MTP Point Code conversion table associated to the Link Set (fig.1, fig.2, fig.5, fig.6; col.4, lines 46-63, col.6, lines 19-35, 51-54; 'conversion table' reads on the claim 'Mapping Table').

Lindquist further teaches performing a mapping in the MTP of the gateway of the actual OPC to the alias OPC (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node').

Lindquist further teaches replacing the actual OPC by alias OPC and the alias DPC to the actual DPC, wherein the alias OPC and the actual DPC are known in the second SS7 telecommunications network (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'second SS7 telecommunications network' reads on the claim 'second licensed operator network').

Regarding claims 7 and 11, Lindquist teaches that the selected Link Set has associated therewith a conversion table (fig.1, fig.2, fig.5, fig.6; col.4, lines 46-63, col.6, lines 19-35, 51-54; 'conversion table' reads on the claim 'Mapping Point Code Table').

Regarding claim 8, Lindquist teaches that the step of receiving in the Message Transfer Part (MTP) of the gateway in the first SS7 telecommunications network a signaling message, the signaling message is an incoming signaling message and signaling message is originated in the second SS7 telecommunications network, wherein the incoming signaling message including an actual OPC in the second SS7 telecommunications network and an alias DPC from the perspective of the second SS7 telecommunications network as defined within the second SS7 telecommunications network's own numbering plan (abstract; fig.5, fig.6; col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node', 'first SS7 telecommunications network' reads on the claim 'first licensed operator network' and 'second SS7 telecommunications network' reads on the claim 'second licensed operator network').

Regarding claim 9, Lindquist teaches that the step of mapping based on the direction of the signaling message in the MTP of the gateway in the first SS7 telecommunications network, the signaling message is an incoming signaling message and the actual OPC and alias DPC are mapped from the second network's own numbering plan to an alias OPC and an actual DPC in the first SS7 telecommunications network's numbering plan (abstract; fig.5, fig.6; col.6, lines 19-

35, 51-54; 'gateway' reads on the claim 'Border Node' and 'first SS7 telecommunications network' reads on the claim 'first licensed operator network').

Regarding claim 12, Lindquist teaches an identity field for an associated Link Set (fig.4; col.3, lines 35-58, col.5, lines 17-42).

Lindquist further teaches an identity field associated with Point Codes in an own numbering plan (fig.4; col.3, lines 35-58, col.5, lines 17-42).

Lindquist further teaches an identity field associated with Point Codes in an external numbering plan (fig.4; col.3, lines 35-58, col.5, lines 17-42).

Regarding claim 14, Lindquist teaches the identity field associated with Point Codes in an own numbering contains the actual Point Code values according to the own numbering plan (fig.4; col.3, lines 35-58, col.5, lines 17-42).

Regarding claim 15, Lindquist teaches the identity field associated with Point Codes in an external numbering contains the alias Point Code values according to the external numbering plan (fig.4; col.3, lines 35-58, col.5, lines 17-42).

Regarding claim 16, Lindquist teaches a first means for processing the signaling message to apply the MTP level 1 function (fig.2, fig.4; col.4, lines 22-58, col.5, lines 17-42).

Lindquist further teaches a second means for processing the signaling message to apply the MTP level 2 function (fig.2, fig.4; col.4, lines 22-58, col.5, lines 17-42).

Lindquist further teaches a third means for processing the signaling message to apply the MTP level 3 function, wherein the MTP level 3 function includes a MTP Point Code Mapping means for translating the Point Codes in the signaling message into different Point Codes in a

different numbering plan than the numbering plan of the Point Codes originally contained in the signaling message (fig.2, fig.4; col.4, lines 22-58, col.5, lines 17-42).

Lindquist further teaches a fourth means for processing the signaling message to apply the MTP level 4 function (fig.2, fig.4; col.4, lines 22-58, col.5, lines 17-42).

Regarding claim 17, Lindquist teaches that the network node is any intended node (fig.1; col.3, lines 35-58; 'any intended node' reads on the claim 'a Telephone Switch, a Mobile Switching Center, a Home Location Register, an Authentication Center, a Signaling Control Point, a Signaling Switching Point, a Billing Center, a Message Center, a Signaling Data Point, a Visitor Location Register, a Mobile Positioning Center, or an Operation & Maintenance Center').

Regarding claim 18, Lindquist teaches the MTP Point Code Mapping means maps the Point Codes originally contained in an outgoing signaling message from own numbering plan to external numbering plan (fig.4-6; col.3, lines 35-58, col.5, lines 17-42, col.6, lines 19-35, 51-54).

Regarding claim 19, Lindquist teaches the MTP Point Code Mapping means maps the Point Codes originally contained in an incoming signaling message from external numbering plan to own numbering plan (fig.4-6; col.3, lines 35-58, col.5, lines 17-42, col.6, lines 19-35, 51-54).

Regarding claim 20, Lindquist teaches that a SS7/C7 telecommunication network including a first and second SS7 telecommunications networks, the first SS7 telecommunications network including a gateway, the second SS7 telecommunications network including an adjacent gateway to the gateway of the first SS7 telecommunications network, the first and second SS7 telecommunications networks assigning Point Codes according to the same numbering plan, and

the gateway of the first SS7 telecommunications network including a MTP Point Code conversion table for the Link Set connecting the gateway in the first SS7 telecommunications network and the adjacent gateway in the second SS7 telecommunications network, the MTP Point Code conversion table associating an alias Point Code assigned in the first SS7 telecommunications network to a node in the second SS7 telecommunications network with the actual Point Code for the same node in the second SS7 telecommunications network (fig.5, fig.6; col.4, lines 46-63, col.6, lines 19-35, 51-54; 'gateway' reads on the claim 'Border Node', 'first SS7 telecommunications network' reads on the claim 'first licensed operator network', 'second SS7 telecommunications network' reads on the claim 'second licensed operator network' and 'conversion table' reads on the claim 'Mapping Table').

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lindquist et al. (U.S. Patent No. 5,852,660) and in view of Shmulevich et al. (U.S. Pub. No. 2001/0036173).

Regarding claim 13, Lindquist teaches that the identity field for an associated Link Set contains the Link Set Identifier of a Link Set that connects two different SS7 telecommunications network, which is associated to an MTP Point Code conversion table (fig.4; col.3, lines 35-58,

col.5, lines 17-42; 'SS7 telecommunications network' reads on the claim 'licensed operator network' and 'conversion table' reads on the claim 'Mapping Table').

However, Lindquist fails to teach "connects two Border Nodes in different licensed operator network". Shmulevich teaches connects two gateways in another network (abstract; page 3, paragraph 0030; 'gateway' reads on the claim 'Border Node' and 'another network' reads on the claim 'different licensed operator network'). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lindquist to connect two Border Nodes in different licensed operator network as taught by Shmulevich. The motivation for the modification is to have doing so in order to receive the signaling messages and media data transmitted by the associated switch and to convey the messages and data to another of the gateways associated with another one of the network switches.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alam Elahee whose telephone number is (703) 305-4822. The examiner can normally be reached on Mon to Fri from 9:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (703)305-4717. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

M. E.
MD SHAFIUL ALAM ELAHEE
July 25, 2003

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